DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

TB Notes
No. 4, 2010

Dear Colleague:

Every year around this time, I pause and reflect on the exciting work that has been accomplished by the staff of the Division of Tuberculosis Elimination (DTBE) and our partners. We have a full complement of news and reports in this issue of *TB Notes* reflecting the multitude of projects in which we are involved. I hope you will have time to read it before taking your well-deserved holiday annual leave.

On December 8, the World Health Organization announced a policy update providing a "roadmap" for the use of the Xpert MDR/RIF rapid diagnostic test as a way to improve global case detection and rapid detection of rifampin resistance as a proxy for multidrug-resistant (MDR) TB. This new tool could revolutionize our ability to significantly reduce diagnostic delays.

We were saddened to learn of the unexpected death of Susan Bacheller, who was TB Team Leader in the Bureau of Global Health of the U.S. Agency for International Development (USAID). Her colleagues at USAID posted an eloquent tribute to her, which we have included in this issue.

The earthquake that struck Haiti in January 2010 occurred in what was already the most precarious public health system in our hemisphere. CDC was among the groups ready to assist, and DTBE staff members were among these CDC responders. We have an article that reports on a typical assignment to Haiti.

Heather Duncan, who had served as Associate Director for Management and Operations for the Division of Tuberculosis Elimination (DTBE), accepted a promotion to serve as the CDC Deputy Chief of Staff. She had been on detail as acting Deputy Chief of Staff since September 12, 2010. Heather helps manage the day-to-day operations of the CDC Director's office. We are sorry to lose Heather, but we are proud of the continued tradition of TB control staff moving into leadership positions.

DTBE's Surveillance team and state and local TB control colleagues worked diligently on the larger-than-expected "decrease in reported TB cases" anomaly that was noted earlier in the year. The group members studied and analyzed this unprecedented drop in TB cases, and finalized the official number of 2009 reported TB cases. On October 26, the Surveillance team released these data. The number of reported TB cases for 2009 was 11,545, and the case rate was 3.8 cases per 100,000; these figures represent declines of 10.5% and 11.3%, respectively, compared to 2008. Please access the full report at http://www.cdc.gov/tb/statistics/reports/2009/default.htm

The 2010 Program Managers' Course was held October 18–22, 2010, at the Westin Atlanta Perimeter North. As many of you know, this is a course for TB Program Managers, Nurse Consultants, Public Health Advisors, and TB Controllers who have programmatic responsibilities at the state, city, or regional level. I extend my thanks to the dedicated DTBE staff who took time from their schedules to serve as organizers and faculty for the course. Please see the summary provided in this issue.

The Advisory Council for the Elimination of Tuberculosis (ACET) met in Atlanta November 2–3; I include here highlights from that meeting. Dr. Hazel Dean, Deputy Director, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), gave the NCHHSTP Director's Update. She reported on the leadership of CDC's new Center for Global Health: Kevin De Cock, MD, takes the helm as Director and Pattie Simone, MD, serves as the Principle Deputy Director. Dr. Simone started out in TB and was a DTBE medical officer for a number of years; she later served as branch chief of the Field Services and Evaluation Branch (FSEB) in her last DTBE position. We are very happy to see another TB alumna rise to further prominence. Dr. Dean also announced that Terry Chorba, MD, previously the Associate Director for Science for the Center, is now the chief, FSEB, for our division. We are most pleased that Dr. Chorba, who has had a long-time interest in TB, has now formally joined the TB family.

In my DTBE Director's Update, I noted that DTBE staff participated in investigating six outbreaks in 2010. I reported that, owing to HHS-CDC changes in contract funds management, DTBE will make strategic, one-time investments to address priority areas of need in three areas: strengthening and protecting programs; increasing access to new diagnostics; and improving knowledge of the U.S. burden of infection. I also reported that on October 7, DTBE held a special consultation with 30 national TB representatives concerning the Affordable Care Act. The group recommended strengthening the partnership between CDC and HRSA; developing model partnerships between community health centers and TB control programs; developing a model infectious disease "screening package" for primary care providers; developing solutions for undocumented persons who need TB services; and investigating "meaningful use" of TB surveillance and evaluation data. In an update on the TB Genotyping Information Management System (TB GIMS), I shared NTCA user survey results that 71% are satisfied with the system, and 77% do use the system to evaluate genotype clusters.

In updates on global migration, Dr. Drew Posey of the Division of Global Migration and Quarantine (DGMQ) reported that 30 countries are now implementing the 2007 TB Technical Instructions (TIs), with several more expecting to begin implementing them in 2011. Dr. Jenny Flood reported on Vietnam's good progress in implementing the 2007 TIs. Mr. Yecai Liu of DGMQ presented data showing that, in addition to immigrants and refugees, long-term visitors (such as students and some workers) from high-prevalence countries contribute substantially to the burden of TB in foreign-born persons in the U.S.

An update on NCHHSTP health equity activities by Dr. Kathleen McDavid Harrison was well received. In June, an article by NCHHSTP staff on social determinants of health (SDH) was published online in *Public Health Reports*. On October 19, NCHHSTP held a

health equity symposium, during which a SDH white paper was released. NCHHSTP is already incorporating the SDH approach into current and planned activities. In a report on TB and homelessness, we learned that since 1993, 4%-6% of U.S. TB cases have been in homeless persons. Also, during 2002–2010, of the 32 domestic TB outbreaks investigated by CDC, 28 (72%) involved homeless persons. Members of DTBE's Homeless Initiative team have developed an agenda aimed at eliminating TB in the homeless and are exploring initial projects. We look forward to hearing about innovative interventions from the group.

We heard several workgroup reports. Dr. Elsa Villarino gave us an update on the recommendations for preventing MDR TB and extensively drug-resistant (XDR) TB in health care workers who engage in humanitarian work in areas where MDR TB is endemic. She reported that comments on the recommendations are quite diverse, and she was encouraged by ACET to complete the harmonization of comments and begin the clearance process for this important document.

Dr. Dolly Katz gave an update on the revised guidelines for preventing TB in foreign-born persons. A new and major recommendation of this document is that every U.S. resident born in a TB-endemic country should be screened for TB and tested for LTBI at least once as part of routine health maintenance. Drs. Katz, Masae Kawamura, and Michael Fleenor have collaborated on refining and distilling the workgroup's draft. ACET membership suggested modifications, to be incorporated by Dr. Katz, and the group will review and hopefully approve a final document at the next ACET meeting.

Lisa Thombley, JD, reported that the Menu of Suggested Provisions for State TB Prevention and Control Laws has been finalized and made widely available. She asked ACET for suggestions for further distribution and dissemination. The menu features a set of provisions for consideration by public health officials and their legal counsel in developing or amending laws to prevent and control TB. This document is available at http://www.cdc.gov/tb/programs/laws/menu/default.htm and http://www2.cdc.gov/phlp/tbcontrol.asp.

Stop TB USA convened a retreat on September 1–2, 2010, to review its mission, by-laws, and ongoing activities. It also hoped to develop a plan of action for its report, *Tuberculosis Elimination Plan for the United States.* The retreat participants concluded that the group must be adequately resourced; the benefits for and expectations of members must be clarified and made transparent; and a patient/family membership category should be added. By adding a forum for the patient's voice, Stop TB USA can gain a valuable ally and advocate.

In light of the serious challenge of TB in the U.S./Mexico border area, a U.S./Mexico TB Summit was held on June 24, 2010, where an ambitious collaborative agenda was established. I reported on this summit, and several others spoke about plans for addressing TB along the border, and the many barriers to implementing the activities. There is much to do, but we have many dedicated partners on both sides of the border.

Dr. Bev Metchock gave an update on the first year of the DTBE Laboratory Branch's molecular detection of drug resistance (MDDR) service. This new service appears to be working well and providing useful information for treatment guidance, significantly sooner than conventional methods. The branch anticipates being able to offer rapid detection of drug resistance soon, as well. Finally, Dr. Jenny Flood described the challenges some areas are facing in obtaining second-line drugs for treatment of MDR TB. Owing to the increase in MDR TB in some regions of the world, more such cases are being diagnosed in the United States and must be treated; yet many patients, and even some TB control programs, cannot afford these second-line drugs. CDC will be working urgently with partners to find a solution to this problem. After a number of business items were discussed, the meeting was adjourned. The next meeting will be held in early March 2011.

I extend to all of you my thanks for the challenging and important work you do every day and the amazing accomplishments you have achieved, this year and every year. I am proud of the work we do together and fortunate to count all of you as colleagues. Best wishes to you and your families for a safe and peaceful winter season!

Kenneth G. Castro, M.D.
Assistant Surgeon General, USPHS &
Commanding Flag Officer
CDC/ATSDR Commissioned Corps
Director, Division of Tuberculosis Elimination
National Center for HIV/AIDS, Viral Hepatitis,
STD, and TB Prevention

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HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS

Rotary International Projects

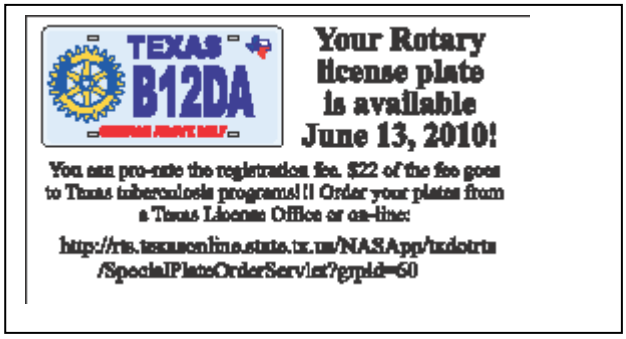
Tuberculosis is a major public health problem in Texas. In 2009, a total of 1,501 TB cases were reported to the Texas Department of State Health Services. The Texas-Mexico border region is significantly affected by TB. The frequent crossing of citizens from both Texas and Mexico to visit family, to shop, and to work opens the door for the cross-border transmission of TB.

Rotary International districts in Texas and Mexico recognize the significance of preventing and controlling TB, especially in the border region. Taking a page out of the Rotary International's successful campaign against polio, Rotary districts in Texas and Mexico have been working together to increase public awareness about TB, and to create infrastructure and capacity to prevent and control TB in the border region.

For some time now, border-area Rotarians have been bringing equipment and supplies into the binational TB projects and health departments in Reynosa, Matamoras, and Nuevo Laredo, Mexico, to support TB clinical services in the area. This support has been critical in the management of patients with complicated drug-resistant TB in the border region.

In another project, Rotary International District 5870 in Texas has collaborated very successfully with Mexican Rotary District 4130 in building TB prevention and control infrastructure and capacity in the Texas-Mexico Rio Grande Valley border region. The Rotary Foundation granted these Rotary districts $300,000 to develop a TB laboratory in Reynosa, Mexico, that will facilitate TB diagnostic services in the area. The laboratory building is nearing completion, and the equipment and supplies are being purchased to outfit this new facility.

The Rotary International districts have also been working to increase awareness in Texas that TB continues to be a major public health problem. The Texas Department of Transportation has approved the development of a special license plate for Rotary (see image). The license plate is focused on increasing TB awareness. The funding from this project will be used for TB prevention and control.



Rotary continues to be a valuable partner to the Texas Dept of State Health Services in efforts against TB in the Texas-Mexico border area.

—Reported by Charles Wallace, PhD, MPH
Texas Dept of State Health Services

Life after the CDC Cooperative Agreement: Implementation of Newly Proposed CoAg Activities

Background
In August 2009, the Los Angeles County TB Control Program (LAC TBCP) submitted its CDC Cooperative Agreement (CoAg) proposal. The CoAg proposal outlines ongoing and proposed activities needed to achieve the national TB objectives over the next 5-year grant cycle

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(2010–2014). The CDC CoAg was written as a collaborative effort between the various TB program managers and the new TB Program Director during July and August 2009. In addition to listing the ongoing prevention and control activities, the CDC CoAg identified several new initiatives that would strengthen key components of the program. This year's grant highlighted three areas: 1) provide greater analysis and dissemination of TB surveillance and epidemiologic information; 2) increase partnerships across all TB activities, and 3) build on existing program evaluation efforts.

This year's CDC grant highlighted the importance of working toward the goals in the National TB Indicators Project (NTIP) and establishing realistic program evaluation methods. As a result, the TB managers identified evaluation measures for each of the following seven grant components:

1. Treatment and case management of persons with active disease;
2. Evaluation of immigrants and refugees;
3. Contact investigation;
4. Public health labs;
5. Human resources development;
6. TB surveillance and reporting; and
7. Program evaluation.

In the past, LAC TBCP has not had total success in systematically integrating evaluation into all of its activities. In order to improve the chances of successfully establishing these new activities, the new Program Director wanted to reorganize the TB program to align program resources.

For these reasons, the program held a series of meetings between late September and December 2009 with the goal of integrating ongoing and proposed activities outlined in the CDC CoAg with the LAC TBCP strategic plan, local LAC TBCP Performance Measures, and the NTIP/CAL TIP measurements. This report will focus on activities, tools, and outcomes of these meetings.

Description of Activity

Shortly after submitting the CDC CoAg in August 2009, the LAC TBCP initiated a series of weekly meetings to establish a method for strengthening current strategic priorities and implement newly outlined program activities outlined in the CDC CoAg. These meetings included the TB program managers. The goals of these meetings were to:

- Outline the "big picture" of how we plan to implement program activities;
- Brainstorm regarding resources and stakeholders to accomplish our goals;
- Prioritize activities, so as not to spread our resources too thin, and increase collaboration;
- Assign responsibility for developing program plans; and
- Develop detailed program plans to document actions and steps moving forward.

Working closely with the TB Program Director, we developed several key tools to assist in the process.

- A grid was created to better align the seven CDC CoAg components with the TBCP strategic plan, internal Los Angeles County department-wide Performance Measures, and current / proposed program activities. This served as a reference for the program facilitators and as a visual tool to help tie major program directional documents together.

- The program evaluation objectives and performance targets grid was submitted with the CDC CoAg application. This was created to establish annual incremental milestones for each of the NTIP indicators.

- CoAg implementation grids were created for each of the NTIP indicators that outlined the major strategies and activities needed to reach the NTIP indicator. This grid was used as our major tool to identify resources needed to achieve the NTIP activities.

Result of Activity

During this process, our managers came to consensus on key priority strategies for implementation during the first year. With all key managers providing input, we were able to list all ongoing program functions, suggest improvements to ongoing activities, and list all proposed new initiatives. Through this process, our new TB Program Director was able to identify gaps within the program and outline a plan to realign program functions. Program plans are also being developed to describe in greater detail the individual steps that are needed to ensure success of each focus strategy.

Lessons Learned

The following lessons emerged from this process:

- Evaluating a program can be easier if you align the various program measurements/ indicators. Strategic plans, internal department-wide performance measures, monthly indicators, and other measurements that track the effectiveness and efficiency of a program over time should be similar across a program's local, state, and national reporting. Tracking and reporting on the same key indicators enables a program to collect better data over time. In addition, these indicators should be reviewed at set intervals for appropriateness and effectiveness.

- The importance of developing various tools that help program managers document ongoing processes cannot be understated. Tools should be easy to understand and should be completed during the planning meetings. Like all TB program managers, our staff had very little time outside of our planning sessions to collect additional information or complete "homework assignments." The tools we developed were completed with all managers' input during the meetings and analyzed by a smaller group of core facilitators later. If you conduct this process over months as we did, you'll also need to develop summary tables to aid in restarting discussions at the beginning of each meeting and in documenting group actions/decisions.

- Developing a 5-year program plan has to begin with simple steps, by first looking at the big picture. The process should not be done in a vacuum, but rather should be done with key persons sitting at a table together to contribute to the process. The discussion between managers may get heated, but the output of these discussions will be more meaningful and rich. From these discussions, facilitators will be able to identify program gaps and priorities.

Future Plans for this Activity

With the completion of the initial phase, a small group of these managers will continue to work from these action plans as the evaluation team. The evaluation team will review the status of key focus strategies on an ongoing basis to ensure that progress continues.

—Reported by Shameer Poonja
DTBE PHA, Los Angeles, California

New York City Bureau of TB Control Restructures Clinic Services

In 2009, the New York City Department of Health and Mental Hygiene Bureau of TB Control (BTBC) restructured its clinic functions to improve efficiency and to address severe overcrowding, which was negatively affecting patient satisfaction and staff morale at BTBC's nine chest centers. It was hoped that the streamlined operations achieved through the restructuring would then allow staff to focus their efforts on activities such as HIV testing, evaluation of high-risk latent TB infection (LTBI) patients such as contacts, and increasing treatment completion for both active TB and LTBI.

An external review conducted by a team of health care delivery consultants in 2008 identified numerous deficiencies in clinic operations. Potential solutions to operational inefficiencies and clinic organizational deficiencies were proposed, and these proposed solutions guided the restructuring plan. In addition, BTBC undertook an assessment of the burden and impact of testing for TB infection (TTBI) at BTBC clinics. This assessment revealed that most of the individuals who sought TB tests did so for employment or school admissions purposes, and yet these people had the lowest risk for TB infection.

The BTBC director convened a workgroup to formulate a restructuring plan and create a monitoring and evaluation plan for the restructuring. The workgroup was made up of staff from various areas of BTBC and from other areas of the Department of Health and Mental Hygiene, including the Commissioner's Office, the Division of Disease Control (which houses all infectious disease programs) and the Division of Finance and Planning. The workgroup met weekly for 3 months and made recommendations for the restructuring. These recommendations were presented to the Commissioner of Health for approval. The restructuring plan focused on targeted screening and testing of high-risk individuals, TB services for patients with active disease or high-risk LTBI, and clinic cycle-time (the amount of time patients spend in the clinics). The group also developed training/reference materials and conducted training for staff on the new procedures.

To address the lack of targeted testing, BTBC changed its TB testing policies to eliminate "administrative" testing for TB infection except where such testing is required by local public health law.

To address patient flow issues, employees were re-trained on clinic policies and procedures with emphasis on enforcement of appointment protocols. They were trained to remind patients about their next appointment, in person and by telephone. Staff also started making follow-up calls for missed appointments for all patients. Revamping of the appointment system also required that the electronic medical record system be adjusted to prevent unsupervised overbooking of patient appointments, while at the same time allowing walk-ins for priority patients.

To redirect patient flow from the most severely congested clinic, the three clinics in Brooklyn were organized into a "hub and satellite" model: one clinic was designated as the hub, where patients with suspected or confirmed TB would be followed; patients with LTBI would be followed up at either one of the two satellite clinics. The roles of Physician-in-Charge and Center Administrative Manager were re-defined so that

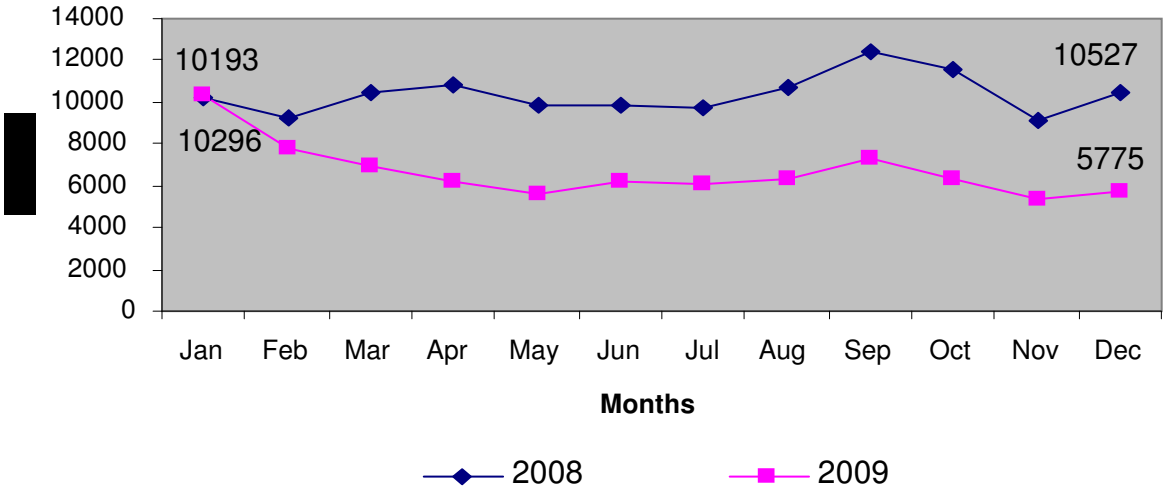
they would have administrative oversight not only of one clinic, but of the entire hub-and-satellite structure.

The planned changes were communicated to stakeholders through clinic signage, the Internet, and mass e-mails. Information about the changes was also disseminated through the city's general information portal (telephone number 311) and at events such as the annual World TB Day conference for health care providers.

same time, the TTBI positivity rate increased from 7.7% to 11.5%, indicating that targeted testing was being achieved through removal of low-risk individuals from the testing pool.

Outcomes from the appointment protocol changes and hub-satellite model were also positive: for January–December 2009, the proportion of patients seen without appointments decreased from 33% to 20%. The average patient cycle time for an initial comprehensive

Patient Clinic Visits, 2008 and 2009



Upon evaluation, it was found that benchmarks were met for almost all of the indicators. From 2008 to 2009, the number of clinic visits at all clinics decreased by 36%, from 124,579 to 80,113, mostly as the result of a drop in administrative TB testing. (Figure 1) This relieved some of the crowding and helped staff focus their efforts on priority activities. Among patients with active TB diagnosed during January–March 2009, treatment completion was 92%, an increase from 88% in the same cohort the previous year. The proportion of contacts who completed LTBI treatment also increased. In addition, the proportion of patients with known HIV status increased from 71% to 76%. The number of tests for TB infection (TTBI) decreased by 60%, from 31,412 to 12,595. At the

visit (consisting of obtaining a chest x-ray, conducting a physician and a nursing evaluation, and collecting specimens for testing) was reduced by about 11%. By December 2009, all (100%) of Brooklyn clinic patients with suspected and active TB were seen at the hub, up from 70% in January 2009.

Although not all of the restructuring indicators reached their targets, they all showed progress. Improvements in long-term outcomes such as treatment completion for active TB and LTBI suggest that clinic restructuring has positively affected the BTBC's overall performance. The project's success can be attributed to the high level of buy-in by staff and to the high level of support provided by the Commissioner of Health. Finally, the project was aided by thorough

training of staff at all levels; well-executed internal and external communication plans; and a comprehensive, iterative monitoring and evaluation plan.

—Reported by Michelle Macaraig, MPH, and Martha Alexander, MHS
New York City Dept of Health and Mental Hygiene

CDC Chapter of Blacks in Government Wins National Award

The CDC Chapter of Blacks In Government (BIG) was the winner of the 2010 BIG national Prestige Award. Linda Leary, CDC Chapter President, accepted the award at the 32nd BIG National Training Conference in Kansas City, Missouri, in August 2010. Mr. Al Taylor, who is on the group's Board of Directors for Region IV, stated in an e-mail to Linda, "We are proud of the recognition you brought to yourselves and Region IV. I was personally honored to be on stage with you for your award presentation at the National Training Conference." In addition, the Chapter won the 2009 Regional Chapter of the Year Award for our activities and accomplishments.

During 2009, the CDC Chapter was quite active. Some of the group's accomplishments, as described in the award nomination write-up, include the following:

- Collaborated with Dr. Philip Finley, CDC, on assignment to Nigeria, to provide much-needed school supplies to children in two Nigerian schools. Boxes of supplies such as pencils, paper, rulers, notebooks, crayon, and chalk were collected at various CDC campuses, then shipped to Dr. Finley; he then delivered them to the schools in need. He reported that the children were extremely happy to receive them.
- Reviewed, analyzed, and provided recommendations to CDC management officials regarding disparities in agency performance rating results. CDC welcomed the group's participation and response to this issue.
- Served as volunteers during two of Georgia Public Broadcasting's television membership campaigns.
- In February, sponsored several lunch-and-learn sessions with Mr. Deric Gillard, former national communications director for the Southern Christian Leadership Conference, author, and keynote speaker at CDC's observance of African-American heritage month.
- Coordinated volunteers for a Habitat for Humanity project in DeKalb County, Georgia; also partnered with Kroger and Pizza Hut on two different occasions to provide lunch to volunteers.
- For the past 2 years, the group served as a sponsor of, and its members participated in, Atlanta's annual Tuberculosis Awareness Walk; this event serves as an opportunity to promote health and wellness among members of BIG.
- Sponsored a lunch-and-learn seminar with an adoption agency to inform, prepare, and support employees who are considering adopting a child from Georgia's foster care system.

For all its numerous accomplishments and activities, the CDC Chapter received the 2010 Blacks in Government Prestige Award. Kudos to the CDC Chapter of BIG for this outstanding honor!

—Reported by Linda Leary, President, CDC Chapter of BIG and Ann Lanner Div of TB Elimination

Lee Reichman, MD, MPH, 2010 Honorary PHA

The Watsonian Society is the official organization of current and former Public Health Advisors (PHAs). The group is named for William C.

Watson, Jr., an early and effective member of and advocate for the PHA program; CDC's prestigious William C. Watson, Jr., Medal of Excellence is also named for Mr. Watson.

Each year, the members of the Watsonian Society nominate and select outstanding public health professionals who are not PHAs, but who are deemed to be such valuable partners to PHAs that they are worthy to be called Honorary PHAs. In 2010, the Watsonian Society nominated and selected Dr. Lee Reichman, among other distinguished individuals, for this honor. As in previous years, the Watsonian Society honored the awardees at its annual banquet on October 1, 2010, in Atlanta. Following is the text of the nomination:

> "It is fitting and appropriate for Public Health Advisors (PHAs) to honor global and national leaders who have supported our PHA colleagues, and the PHA series, in a lifetime of public health work. Lee B. Reichman, MD, MPH, is a long-time and globally recognized tuberculosis (TB) medical and public health leader. He has served in key leadership positions in TB control and prevention for almost 40 years in the New York City Health Department (Director, Bureau of TB Control), and later in the University of Medicine and Dentistry of the New Jersey Medical School (UMDNJ) in Newark, NJ. He is currently the Executive Director (and founder) of the UMDNJ Global TB Institute (previously the UMDNJ National TB Center).
>
> "Dr. Reichman has worked with and supported numerous PHAs in the New York City Department of Health, the New Jersey Department of Health and Senior Services, and the UMDNJ National TB Center/Global TB Institute, and at CDC while serving on various committees, research projects, and grant-related activities. Early on and consistently, he utilized and supported the activities, leadership abilities, and roles of his PHA colleagues. Some examples would be in his dealings with them (consultation, training, and advice) as well as recognizing their accomplishments in his books (e.g., *Timebomb*) as well as his presentation of "TB Icon" awards to two of our fellow PHAs.
>
> "Dr. Reichman graduated from Oberlin College, received his MD degree from New York University, and received an MPH degree from Johns Hopkins University. He is widely published in professional journals, is a longtime member of the International Union Against Tuberculosis and Lung Diseases (past vice-Chair of the Executive Committee), Stop TB USA (former Chair), and the American Thoracic Society (honorary lifetime member). He has received numerous awards, written over 200 original journal articles and books, collaborated with CDC and other agencies in approximately 70 research projects, and has been on several key task forces and advisory committees for the New Jersey Department of Health and CDC.

Dr. Tom Frieden, CDC Director (right), congratulates Dr. Reichman on his Honorary PHA award.

"Early in his position at the New Jersey Medical School, Dr. Reichman identified the need for Centers of TB Excellence to guide U.S. health departments and providers in the reduction of TB through enhanced education, training, and research activities. This concept was a forerunner of the CDC-funded National TB Centers. Dr. Reichman also was concerned about global TB and the need to 'defuse the ticking bomb of MDR TB throughout the world.' To that end, his National TB Center began formalized training of government and public health officials, nurses, physicians, and outreach workers from other countries.

"He has served as President of the American Lung Association. He has been detailed to the Global WHO Stop TB Partnership and was a charter member of their Advocacy Advisory Committee. He also serves as the American College of Chest Physician's representative to CDC's national Advisory Council for the Elimination of Tuberculosis.

"Through all of these achievements and efforts, Dr. Reichman established a well-deserved reputation among our PHA colleagues for never missing an opportunity to support and promote the concept of PHAs in his discussions and advocacy with local, state, and national policymakers and leaders. We, his colleagues**,** appreciate and recognize his public health accomplishments and his consistent support of individual PHAs and the PHA series as a whole.

"We … would like to honor Lee B. Reichman, MD, MPH, for his outstanding public health accomplishments and for his consistent local, national, and global support and promotion of individual PHAs and the PHA series by nominating him to be a Watsonian 'Honorary Public Health Advisor'."

In addition, we include a poem composed by Chris Hayden for Dr. Reichman's birthday. Chris, also a PHA, is well qualified to write prose as well as poetry about Dr. Reichman; after retiring from CDC/DTBE as chief of the Communications and Education Branch, he served for 10 years as a senior staff member of the Global Tuberculosis Institute, of which Dr. Reichman is Executive Director.

The King's Touch

(On the Occasion of Lee's 70th Birthday)

I think that we shall never see
A monarch with more pizzazz than Lee

Whose wisdom is often laced with fire
To purge the dross and lead us higher

Whose substantive sound bites cut to the chase
Lo, bureaucrats squirm when he's in their face

And when apathy loomed he visaged to seize
Upon the *Timebomb* of this sexless disease

He got our attention a year ago
When aortic acrobatics laid him low

But he defied the Reaper's charms
To hold his grandchild in his arms

And now the feisty curmudgeon's back
The monarch's all heart; he's on the attack

And he ain't goin' "gentle into that good night"
For he'll "rave and rage" 'till he sets things right

Yes, he'll "rave and rage" with a touch of class
And the King's touch blesses us all alas.

Congratulations to Dr. Reichman for the richly deserved honor of being selected as an Honorary Public Health Advisor!

—Contributed by staff of the Watsonian Society, the Global Tuberculosis Institute, and the Div of TB Elimination

Temporary TB Advisors to Haiti Responding to the Earthquake

Haiti has the highest incidence of TB in the Western Hemisphere, with a rate of 306/100,000 persons, compared to the rate in the United States of 3.8/100,000 (1, 2). On January 12, 2010, an earthquake in Haiti left an estimated 300,000 people dead and 1.5 million homeless.

I volunteered to go to Haiti to help in whatever capacity was needed. I was honored to be the first CDC employee to go to Haiti to specifically work on TB as an advisor to the Global AIDS Program (GAP)/Haiti and the National TB Control Program. I went twice, for almost a month each time (April 13–May 8, and July 1–31, 2010).

The following staff also volunteered and worked in Haiti for 1-month TB assignments: Dr. Stefan Goldberg, DTBE (May 2–29); Dr. Cheryl Scott, DTBE (May 28–June 24); Dr. Kassim Sidibe, Center for Global Health, TB/HIV (July 12–August 6); and Dr. Miguel Ocana, Division of Global Migration and Quarantine (Sept 24–Oct 29, 2010).

We worked with partners from GAP/Haiti and multiple nongovernmental organizations (NGOs) to provide assistance to TB control (see list of partners). Much of our job was to act as advocates to ensure that TB was on the agenda of public health priorities in Haiti.

Our "Terms of Reference" activities were to

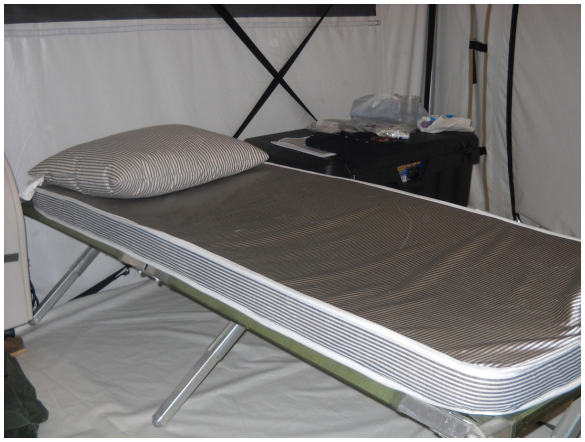
- Determine Haiti's current TB control needs and structure of tracking TB patients;
- Provide technical assistance to International Child Care (ICC), which is the NGO responsible for maintaining the national TB database;
- Assist in strengthen linkages between the national TB program, GAP, and key NGOs;
- Determine relevance of other NGOs providing clinical care for TB patients;
- Assess ability to perform diagnostic testing;
- Enhance linkages between surveillance and clinical data; and
- Participate in TB control meetings to support ICC, the TB program, and GAP.

Photo by Stefan Goldberg: Workers removing rubble, Port-au-Prince, Haiti.

Other activities included

- Delivering TB educational materials to medical providers and community members in hospitals, clinics, and camps for internally displaced persons (IDPs); materials included WHO guidelines, MDR TB treatment guidelines, TB treatment cards, a comic book about TB, and a book about cultural literacy in Haiti (available in French, Haitian Creole, and English);
- Visiting NGOs in IDP camps to provide a 1-page sample infection control plan questionnaire to encourage reporting of suspected or former TB cases; and
- Initiating TB partners meetings; the first was attended by 22 partners from 13 organizations in May, many who had met for the first time; TB partner meetings are currently continuing.

Typical day in "Tent City"
We stayed in tents on the U.S. Embassy compound with two or three other CDC employees in each tent (about 20 tents total; usually the CDC team was around 10 people, and 20 or so people from other agencies stayed in Tent City). Everyone was out of the tents no later than 7:00 am because the temperature was already over 90°F outside, and even hotter inside the tent.
Photo by Lauren Lambert: Sleeping accommodations, Tent City, U.S. Embassy compound, Port-au-Prince



A typical day was as follows:
1. Untangle from the mosquito net when the first alarm in the tent chirps.
2. Grab your toothbrush and walk over to the shower by the Embassy (I learned early about the "secret" shower in the air conditioned gym, with hot water – ahhh).
3. Return to the tent momentarily to gather back pack and all provisions for the day: laptop, local cell phone, international blackberry (thanks, Director's Emergency Operations Center [DEOC]), camera, sunscreen, DEET, and doxycycline (or whichever medication you're taking to prevent malaria! And don't forget anything else you might need for the day; did I mention it was hot in the tent?).
4. Eat breakfast with the CDC team at the snack shop inside the U.S. Embassy (usually a foot-long roll with egg and cheese; the other half is often lunch).
5. Then walk to the nearby Embassy building, where you open several extremely heavy doors, and show your CDC identification card (which you are required to wear at all times) to the nice U.S. Marines.

The rest of the day was either spent in the offices at the Embassy (arranging meetings, writing reports, updating contact lists), or traveling to the field to meet with partners at NGOs, hospitals, clinics, or IDP camps.

Internally displaced persons (IDP) camps
On one occasion, Dr. Steven Blount, Director of the Center for Global Health, and I were able to visit several IDP camps with a group from Partners in Health (non-profit health care organization, founded in 1987), including Dr. Paul Farmer's assistant, Emily Bahnsen. At the camps we saw difficult living conditions, but hard-working people with smiles.

During my first trip, a CDC colleague in Haiti told me that a physician at an IDP camp at the former golf course said many TB cases were being referred from their camp, which is run by an NGO, the Jenkins/Penn Haiti Relief Organization (JP/HRO). Dr. Stefan Goldberg and I arranged a trip to JP/HRO to discuss TB with the medical director, Dr. Justine Crowley, and to deliver TB educational materials, as she requested. While we were speaking with her, Sean Penn, manager of the camp, passed by. Then, the next guy walking past took his sunglasses off and said, "Lauren Lambert?" I was surprised to see a friend from Atlanta, Stephen Duvall, who was volunteering at the camp. My friend introduced us to Penn; Dr. Goldberg and I suggested that Haiti's national TB program and CDC could assist in conducting a TB training session for the camp volunteers. Penn replied, "That would be great."

Later that week, I happened to be sitting in the right place at the right time to answer the phone and passed it to someone who could help. Workers at JP/HRO were searching for an

antitoxin for a 15-year-old boy who had diphtheria. I gave the phone to someone who passed it to a physician from the Pan American Health Organization (PAHO), Dr. Kam Mung, who happened to have access to the key to the warehouse of medicine.

On May 8, we learned that Penn had mentioned CDC and PAHO favorably during a television interview on CNN with Anderson Cooper and Sanjay Gupta on May 7. A clearly frustrated Penn gave a passionate talk about difficulties finding the diphtheria antitoxin. Sadly, the boy died shortly after the medication was located. A heartbreaking tragedy developed into an opportunity, and vaccinations were provided for the boy's classmates and family members.

Lessons learned
The following are examples of lessons that can be learned during travel; lessons that, to me, were reinforced in Haiti:

- The more I travel, the less I know.
- People are the same all over the world.
- The definition of "success" may require rethinking; progress is not as quick as one might like.
- It's a small world (and shrinking).
- The secret is sharing; after the earthquake, displaced families often moved together with their entire community. Neighbors supported each other like family, sharing shelter, food, water, and news.

A note about meals-ready-to-eat (MREs)
I ate several MREs (provided by DEOC) in Haiti, especially in April/May when we had few options. A typical MRE contains an entree, energy bar, crackers, tea or coffee mix, salt and pepper, napkin, two Chicklet gum pieces, spoon or fork, and a chemical heater. Also, some have a tiny Tabasco sauce, and if you're really lucky, you'll get Skittles! MREs contain about 2000 calories each, have a 5-year shelf life, require only 2 ounces of water to activate the heater, and are ready in about 5 minutes. MREs once included cigarettes, but they were discontinued in 1972.

Acknowledgments
We are grateful to our Haitian colleagues for the opportunity to work together, and we thank DEOC and the many DTBE employees who assisted our efforts during these assignments.

Thank you to Dr. Andy Vernon for introducing me by e-mail to his friend Dr. Jean (Bill) Pape, director of the Haitian Group for the Study of Kaposi's Sarcoma and Opportunistic Infections (GHESKIO), the world's first HIV/AIDS organization (founded in 1982). Dr. Pape was kind enough to meet with me, and provided a telling overview of TB activities in Haiti. Specifically, Dr. Pape said more TB training for health care workers is needed, similar to training that was provided to workers about antiretroviral therapy (ART) for persons with HIV/AIDS.

Thank you to Allison Maiuri and others in DTBE's Communications, Education, and Behavioral Studies Branch for arranging multiple orders of TB educational materials.

Thanks to Michael Iademarco who, before my first trip to Ethiopia for 3 months in 2002, told me, "Don't be afraid of DEET!"

And thank you to Anthony Degina, Chief Executive Officer of the University of Miami Hospital for donating hundreds of surgical masks to trained physicians to use with symptomatic persons in IDP camps. When asked about contributing masks, he kindly replied, "How many do you need?"

Key TB partners:

- The Haitian Group for the Study of Kaposi's Sarcoma and Opportunistic Infections (GHESKIO)
- International Child Care (ICC)
- National TB Control Program/Haiti
- Nation Public Health Laboratory/Haiti
- Pan American Health Organization/World Health Organization (PAHO/WHO)
- Partners in Health (PIH)

- U.S. Agency for International Development (USAID)

I met so many compassionate and caring Haitians. Many people thanked me for being there; each time I responded the same way, that it was my pleasure and honor.

References
1. WHO, 2007
2. DTBE Surveillance Report, 2009

—Reported by Lauren Lambert, MPH
Div of TB Elimination

U.S. Attack on Tuberculosis a Success Story

Canada Urged to Adopt Action Plan

The following article is republished in full with permission from the Winnipeg Free Press. It first appeared in print June 14, 2010.

A dramatic drop in tuberculosis rates in the U.S. has prompted a national expert to recommend Canada adopt the Americans' "aggressive" approach to track, treat, and monitor infections in First Nations.

Dr. Anne Fanning, former Alberta TB control director and medical officer with the World Health Organization, compared TB rates and control programs among aboriginals in Canada with those in New Zealand, Australia, and the United States in a 2010 report prepared for Health Canada. Health Canada was unable to release or comment on the report, but Fanning agreed to share some of her findings with the *Free Press*.

Fanning found the rate of TB among American Indians and Alaskan aboriginals declined 6 percent a year between 1996 and 2007. By comparison, she said the TB rate among Canadian aboriginals increased 2.6 percent a year over the same time period—and as much as 33 percent in some Inuit populations.

Fanning said the U.S. has strict measures in place to monitor all TB control programs, and takes a “vigorous and aggressive” approach to cure all infectious cases and to give any exposed contacts preventative drug therapy.

By comparison, Fanning said Canada's TB programs vary from region to region, and there are no national standards to monitor programs to determine what gaps exist. Fanning said Canada needs to strengthen its program and consider every infectious TB case an emergency in need of urgent treatment and follow-up.

Canadian aboriginals have disproportionately high rates of TB, which are 31 times higher than nonaboriginals. Last year, a *Free Press* series revealed some remote Manitoba First Nations have among the highest TB rates in the world.

"There's a very determined effort (in the U.S.) to prevent TB via 1) assuring cure and 2) assuring treatment of latent infection," Fanning said. "We need to increase the stringency of our monitoring and evaluation. That's a pretty standard requirement around the world." News of Fanning's review comes amid growing criticism of Canada's beleaguered TB program.

Last week, a federal health committee report urged the government to improve its plan to fight the airborne illness and set clear targets to reduce high TB rates in First Nations and Inuit communities.

Experts said there are no national standards on monitoring and controlling TB, and it's tricky to do simple things such as fly in a mobile X-ray unit to help confirm a diagnosis in a remote community.

Jurisdictional gaps also complicate TB treatment, and experts suggested Health Canada clarify who is in charge of medical treatment for all aboriginals. “That's baloney,” Fanning said of the gaps that exist in Canada. “Somebody has to assume bottom-line responsibility for doing this.”

Dr. John Jereb, medical epidemiologist with the U.S. Centers for Disease Control, credits much of the success in lowering TB rates among American Indians to strong collaboration between tribal, state, and federal health authorities. He said the U.S. government formed the Indian Health Service in the 1950s to respond to the epidemic TB rates, and simultaneously began helping to build community-led health services in tribes.

When the Navajo Nation had problems finding transient TB patients moving between Arizona, New Mexico, Utah, and Colorado 15 years ago, Jereb said tribal officials convened a meeting with the four state health departments to hammer out a strategy that still helps track cases today.

TB cases have become extremely rare, but Jereb said cases and outbreaks still occur. Natives in remote Alaskan villages still have the highest number of annual cases, Jereb said, in part due to geography and crowded housing.

The U.S. recorded 139 TB cases [among American Indians or Alaska Natives] in 2008, and preliminary data from 2009 show that overall TB rates in the U.S. plummeted by 10 percent. "It's about having the capacity to respond and the flexibility to change," Jereb said. "I would say it's a success story."

What is TB?
An infectious disease that experts say is a byproduct of overcrowded homes, malnutrition, and poor overall health. The airborne disease is rampant in many northern Manitoba communities where cramped living quarters help it to spread.

How do TB rates among aboriginals compare between Canada, U.S.?
(approximate averages between 1996 and 2007)
Canada: 5 cases per 100,000 (national rate)
First Nations: 24 per 100,000
Inuit: 72 per 100,000
United States: 5 per 100,000 (national rate)
American Indian: 6 per 100,000
Alaskan aboriginals: 9 per 100,000

What helps explain those differences?
Dr. Anne Fanning said there is no clear way to explain those differences. However, she said American Indians generally have better education, income, and life expectancies than aboriginals in Canada, Australia, and New Zealand. She also said the United States does a good job of treating latent TB infections, so patients don't go on to develop full-blown tuberculosis.

—Reported by Jen Skerritt
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TB EDUCATION AND TRAINING NETWORK UPDATES

TB ETN Tenth Annual Conference and TB PEN Second Annual Conference Conference Highlights

The TB Education and Training Network (TB ETN) held its tenth annual conference August 10–12, 2010, in Atlanta, Georgia, in conjunction with the second annual TB Program Evaluation Network (TB PEN) Conference. Participants numbered 172 and represented state and local TB programs, nonprofit organizations, and academia, from across the United States as well as from Guam, Brazil, Palau, Canada, Puerto Rico, the Virgin Islands, and the Northern Mariana Islands.

This year's theme, *TB Education, Training, and Evaluation: Fitting the Pieces Together,* inspired exciting presentations and activities throughout the 2 1/2-day meeting. Plenary topics included the importance of partnerships to TB elimination and empowering these partnerships with effective training and education tools. Presenters from TB program areas spoke on a variety of topics, including a collaborative effort between

the Los Angeles County Department of Public Health and the private medical community, using video conferencing to provide TB training, and evaluation of HIV testing of women with active TB.

In addition to the plenary sessions, there were a variety of engaging and useful breakout sessions held throughout the conference. Session topics included strategies for developing academic partnerships, engaging stakeholders in the evaluation process, creating opportunities to utilize TB patients as peer educators, and using data to guide evaluation.

A roundtable session was held for TB ETN and TB PEN members who were interested in course development, materials development, cultural competency, and a variety of evaluation topics. The roundtable sessions provided an opportunity for participants to network, discuss topic challenges, and share common experiences.

New to the TB Education and Training Network (TB ETN) conference this year was the presentation of two awards: the TB Educator of the Year Award and the Project Excellence Award. These awards were established to recognize excellence in TB health education and training by TB ETN members around the world.

The TB Educator of the Year award recognizes an individual who has shown dedication and leadership in the field of TB education and training. The recipient of the 2010 TB Educator of the Year Award was Elisabeth (Beth) Kingdon. Beth is the TB Education Coordinator/Planner for the Minnesota Department of Health's TB Prevention and Control Program. Throughout her 6 years with the program, she has managed the development of numerous projects; including the redesign of the program's website, the development of five patient education fact sheets available in 14 different languages, and the development of a TB DVD. She is an active member of TB ETN and has served two 2-year terms on the TB ETN Steering Committee and served one 2-year term as co-chair of the TB ETN Cultural Competency Workgroup. Beth has also served as Minnesota's Training Focal Point since 2005.

The Project Excellence Award recognizes individuals who have developed an exceptional health education and training product or activity within the past 2 years. The recipients for the 2010 Project Excellence Award were Joan Mangan and Katie Rowan for their work on the *Cultural Competency and Tuberculosis Control: Country Specific Guides.* The *Country Specific Guides* provide epidemiological information for both TB and HIV; common misperceptions surrounding the etiology, disease transmission, and cures for TB and HIV; as well as material on the stigma surrounding these diseases. A portion of the guide also provides information regarding verbal and non-verbal communication, naming customs, cultural values, and Internet links to translated educational materials for clients. Originally conceptualized by Joan Mangan, the guides are a collaborative effort by the Southeastern National Tuberculosis (TB) Center (SNTC) and the University of Alabama at Birmingham Lung Health Center. Joan and Katie led the creation of each guide. Donna Wegener, Kristina Ottenwess, and Karen Simpson at the SNTC also provided research, editing, and production support. Congratulations to this year's award winners!

Learning and networking continued outside of formal plenary and breakout sessions. Participants viewed posters submitted by their colleagues and visited exhibits featuring TB education and training resources from DTBE, the Regional Training and Medical Consultation Centers, and state and local TB programs, among others. Tuesday evening's special TB ETN Tenth Anniversary social event gave attendees a chance to catch up with old friends and make new ones.

Evaluation results have been reviewed and finalized. The data indicate that attendees

overwhelmingly enjoyed the conference and learned a lot. Having the conference with TB PEN for the second year in a row provided new learning opportunities for everyone.

—Reported by Peri Hopkins, MPH
Div of TB Elimination

Training Tips: Spicing Up Your Next TB Presentation

"Did you notice what's on the agenda after lunch?"

"Some TB thing, I think."

"Oh. Didn't we just have a TB refresher last fall? Do you think anyone would notice if we didn't go back?"

Does this sound familiar to you? I have been a tuberculosis educator for several years. When I began this career, most of the time and energy I put into preparing presentations was spent ensuring the content was accurate. As my knowledge of TB has increased, I am now able to focus more on making the material and my delivery more engaging.

Many educators will tell you that engaging the audience is one of their greatest challenges. As they say, you can lead the horses to water but you can not make them drink. So, how can we better engage our audiences?

In my experience, the most important prerequisite to engagement is that the audience perceive that they have a need to learn about the topic, beyond simply attending a presentation or completing a learning module. If the audience believes the topic is important, there is a much greater likelihood that they will be engaged by it and open to learning about it.

Whether you are preparing brand new material or adapting something you have used before, here are a few ideas to help you increase your audience's level of engagement.

- *Know your audience.* The key to making material relevant is to understand the needs of the audience. If you cannot do a formal needs assessment in advance of the session, try to talk to at least one person who will be attending to find out what he or she is interested in learning. You can also get a sense of your audience by asking them a few questions at the start of your presentation. This has the added benefit of "breaking the ice" and setting a relaxed tone.
- *Think outside of the PowerPoint.* Is there another method you can use to share the information? If not, is there another way to use this technology? How about using pictures instead of words on your slides?
- *Incorporate sound.* Want to call participants back from the break or provide a cue for ending a group activity? Why not use music? For example, popular tunes or music with a TB connection such as songs from the operas *La Bohème* or *La Traviata*, or the film *Moulin Rouge*. Be sure to explain the connection if there is one!
- *Incorporate images.* Many learners will appreciate the break from text-based slides or complicated content. The images can be still (e.g., photographs) or video (e.g., YouTube clips). The Find TB Resources website (http://www.findtbresources.org) features a link to an image library. The images can be TB-related or not. At one TB course I travelled to several years ago, the facilitator of a particularly complicated session thought to incorporate pictures of places around the city that participants might like to visit. It really helped break up the material and kept everyone interested.
- *Incorporate storytelling.* Storytelling as an educational medium is gaining in popularity. A simple anecdote can add a human element to the session—can personalize it—which helps to engage the audience. It can also make the content seem more relevant. The

story can be from your own experience, historical, fictional, or from someone in audience.

- *Begin or end with a quote.* My current favorite comes from Jean Piaget, who said, "The principle goal of education is to create people who are capable of doing new things, not simply repeating what other generations have done." If you need help finding a quote, there are several good sources on the Internet. (One such source is www.brainyquote.com.)
- *Switch gears frequently.* Don't just stand there and talk at your audience! Varying your presentation methods as you proceed will help maintain their attention and interest level. And don't rush. You should limit the amount of information to be presented to a few key points. That's all your audience has the capacity to absorb in a brief session, anyway.
- *Incorporate play.* Look for opportunities for participants to interact and do something creative. It can be as simple as providing different colors of highlighters for people to personalize handout materials to something as complex as drafting a pamphlet about TB.
- *Have a guest speaker.* Guest speakers can be particularly welcome during longer presentations. Is there a local expert who might be available to discuss one or more of the topic areas? Is there a former patient who would be willing to come and share his/her experiences? How about a representative from a key stakeholder group in the community? If attending in person is problematic, look into the possibility of a video link or teleconference.
- *Learn from the learners.* The collective knowledge of a group of participants is all too often overlooked. Drawing upon audience members' experience and expertise further involves and engages them. Don't let them be passive!
- *Enjoy yourself*. Allow your passion and your commitment to educating about TB to shine through. Your enthusiasm will be contagious.

It goes without saying that TB educators think learning about TB is important. However, there are people out there who do not share our same level of enthusiasm. How can you, as an educator, change this perception? *The solution begins with you.* The next time you are about to prepare a resource or give a presentation, take a few minutes and remind yourself about the importance of your work and your message. Get fired up! Challenge yourself to find ways to focus on the material and your delivery to reflect your enthusiasm. Good luck!

TB ETN Program Highlight

Update to Tuberculosis Nursing: A Comprehensive Guide to Patient Care

In 1997, the nursing manual *Tuberculosis Nursing: A Comprehensive Guide to Patient Care* was published by the National TB Controllers Association (NTCA) and the National TB Nurse Coalition (NTNC). The goal of this comprehensive manual was to encourage the practice of the highest level of care possible for TB patients according to national standards. The manual was to be used in conjunction with three documents, "Diagnostic Standards and Classification of Tuberculosis," "Treatment of Tuberculosis and Tuberculosis Infection in Adults and Children," and "Control of Tuberculosis," which were developed jointly by the American Thoracic Society (ATS) and CDC. The nursing manual has been used by public health nurses and other nurses throughout the country in providing care to TB patients. Many TB nurses consider it an essential tool in their practice.

Since 1997, national standards of care and recommendations in TB control have changed and new testing modalities have been developed. During the 2009 National Tuberculosis Conference, the National Tuberculosis Nurse Coalition met and made the decision to review,

update, and produce a second edition of the manual.

On August 31, 2009, the manual committee co-chairs, Jan Young and Gayle Schack, convened nursing experts from throughout the U.S. to begin the revision process with Jennifer Kanouse, the project coordinator and editor. The editorial board includes the co-chairs, Jan Young and Gayle Schack, as well as Brenda Ashkar (CA), Kim Field (WA), Carol Pozsik (NTCA), and Shea Rabley (SC). The editorial board has provided oversight of the project, as well as review and revision of content. Nurse consultants who conducted the manual review, provided edits, and served as writers for the project are Brenda Ashkar (CA), Carolyn Bargman (CO), Kim Field (WA), Kathy Kolaski (GA), Brenda Mayes (VA), Tammy McKenna (SC), Ellen Murray (FL), Larry Niler (UT), Carol Pozsik (NTCA), Gayle Schack (CA), Shea Rabley (SC), Lisa True (CA), and Jan Young (CA). All committee members have shown a strong commitment to this ambitious project. In May 2010 the editorial board met in Long Beach, California, and reviewed the first draft of the "Tuberculosis Nursing: A Comprehensive Guide to Patient Care," second edition. During the summer of 2010, additional revisions were made and agreed-upon edits incorporated.

Final editing and editorial board review is now underway. Upon completion, the manual will be submitted for any required agency clearances. After clearance, the "Tuberculosis Nursing: A Comprehensive Guide to Patient Care," second edition, will be posted on the NTCA website. The committee is now exploring possible funding sources to allow us to print copies in 2011.

Many thanks to the team of nurse consultants from across the nation for serving on the editorial board and manual committee, and for their commitment and dedication to this valuable project.

—Reported by Gayle M. Schack, PHN

Nurse Consultant
Francis J. Curry National Tuberculosis Center

TB PROGRAM EVALUATION NETWORK UPDATE

2010 TB PEN Conference and Program Evaluation Focal Point Meeting

On August 9, 2010, one day before the official TB ETN and TB PEN conference, a TB program evaluation (PE) focal point meeting was held. Approximately 65 individuals who serve as the assigned points of contact for TB program evaluation within their respective agencies were in attendance. The focal point meeting provided updates on the five TB PEN Teams, TB PEN activities, the DTBE Program Evaluation Team, the role of the PE focal points, and a focal point feedback session. The focal point feedback session was an open forum for PE focal points to provide comments and suggestions to the TB PEN Steering Committee and DTBE on program evaluation and TB PEN-related issues and activities.

The joint TB ETN and TB PEN Conference opened officially on August 10 with a keynote address by Dr. Lee Reichman focusing on partnerships for TB elimination. Other plenary topics included social determinants of health, PE capacity building, and tools of the trade that enhance TB education, training, and program evaluation. Conference activities included workshops and skill-building sessions, expert consultation, and a poster session. The conference social at the end of the first day brought TB PEN and TB ETN members together for an excellent evening of networking.

Conference participants were able to attend several TB PEN workshops and skill-building sessions which combined theory with practical application and provided a variety of speakers representing both CDC and state and local TB programs. Evaluation session topics included

engaging stakeholders, fundamentals of program evaluation, using evidence-based interventions to overcome barriers and challenges, developing logic models, developing an evaluation report, and using data to guide evaluation.

The expert consultation sessions made subject matter experts available to participants to share their expertise in selected evaluation topic areas. This provided participants with an opportunity to interact one on one or in small groups with an expert in the topic area to assist them with gaining a better understanding of conducting program evaluation and effectively addressing topic specific issues. The consultation areas were: evaluation plan development, logic models, evaluation tools, the National Tuberculosis Indicators Project (NTIP), evaluation methods/design, cohort review, and writing an evaluation report.

Attendees also participated in the poster session featuring 18 posters, three of which represented TB program evaluation. One of the posters representing TB PEN was selected for oral presentation. The poster, titled: *Evaluation of HIV Testing of Women with Active Tuberculosis,* was presented by Cheryl Kearns during the closing plenary session.

Overall attendee evaluations indicated that the majority felt it was useful to attend the TB PEN focal point meeting, thought the focal point feedback discussion was informative, and agreed that this meeting should be included next year. The TB PEN Conference breakout sessions also achieved good ratings. An average of 91% of attendees felt the content and learning materials addressed a need or a gap in their knowledge or skills; and 89% felt that, if given an opportunity, they can apply the knowledge gained as a result of their attendance. Overall, they felt they could describe the evaluation capacity building process needed for program monitoring and evaluation; and found the content relevant to the learning objectives.

Suggested TB PEN topics for 2011 include:

- Designing sessions to be more workshop-based and help programs either start, edit, or complete a project with expert and non-expert assistance;
- Providing more examples of state evaluation plans, activities, and reports; and
- Offering more practical examples and participatory activities.

The TB PEN Conference Planning Committee convened in October 2010 and started planning for the 2011 TB ETN & TB PEN Conference. Please contact the TB PEN Conference Planning Committee at tbpen@cdc.gov if you have further suggestions for next year's conference.

—Reported by Brandy Peterson, MPH
Div of TB Elimination
Stephen E. Hughes, PhD
Jill Fournier, RN, BSN
Co-Chairs, TB PEN Steering Committee

TB EPIDEMIOLOGIC STUDIES CONSORTIUM UPDATE

TBESC Task Order 31: Panel Physician Training Visits

A CDC team completed a three-country training tour in August in preparation for a study to compare the effectiveness of the tuberculin skin test (TST) and interferon-gamma release assays (IGRAs) in children applying to immigrate to the United States. Suzanne Beavers, MD, Dolly Katz, PhD, and Denise Garrett, MD, oversee the Tuberculosis Epidemiologic Studies Consortium (TBESC), which is conducting the study at screening clinics in Ho Chi Minh City, Vietnam; Manila, Philippines; and Juarez, Mexico.

The study will compare QuantiFERON (QFT) TB Gold In-Tube and TST results by risk factors for TB in children 2–14 years old who are applying for immigration to the United States. If sufficient data are available, it will also compare QFT and

TST results in children diagnosed with clinical or culture-confirmed active TB during the screening.

The epidemiology team first visited Cho Ray Hospital in Ho Chi Minh City, Vietnam, where approximately 22,000 people each year are screened for entry into the United States. Epidemiology team members toured the immigrant screening facility in order to better understand patient flow during the entire process. The team also witnessed sputum specimen collection and processing, and TST application and reading. The epidemiology team members gave talks on study procedures, enrollment, informed consent, TST application and reading, and quality assurance (QA). Epidemiology team members demonstrated a mock enrollment, after which the panel physician staff practiced mock enrollments. The epidemiology team was accompanied by Ed Graviss, PhD and Nhang Ha, who certified site staff in correct QFT procedures. Following the 2 1/2 day training, the Ho Chi Minh City Cho Ray Hospital site was ready to begin enrollment.

The epidemiology and lab teams next traveled to Manila, Philippines, where panel physicians screen approximately 40,000 immigrant candidates each year for U.S. entry. Patient flow through the facility was again reviewed with the staff at the site, and the epidemiology team was also provided a tour of the facility. Despite the hundreds of patients arriving at the facility each day, patient flow is quite orderly and well-organized. The site was certified to begin enrollment after completing training.

Last, the team traveled to El Paso, TX, and Juarez, Mexico, to meet with the site staff. Servicios Medicos de la Frontera screens 44,000 immigrant applicants each year for U.S. entry, the most of any panel physician site. The first day of the training was done in El Paso. On the second day, the epidemiology team staff traveled to Juarez to tour the site and laboratory facilities, observe TST placement and reading, and discuss QA procedures with the staff. The epidemiology team was again accompanied by the lab team, who certified the site on correct QFT procedures.

Enrollment is underway at each site and will continue until approximately June 2011. Each site will enroll between 300 and 1,000 children. The epidemiology team is currently planning site monitoring visits to ensure that enrollment and QA procedures are taking place in accordance with the protocol. This study will provide a wealth of data on the use of QFT in pediatric applicants, as well as the correlation between QFT and TST results in children exposed and unexposed to TB in an accompanying family member.

—Reported by Suzanne Beavers, MD
Div of TB Elimination

COMMUNICATIONS, EDUCATION, AND BEHAVIORAL STUDIES BRANCH UPDATES

Web Content Syndication Now Available for TB Partners

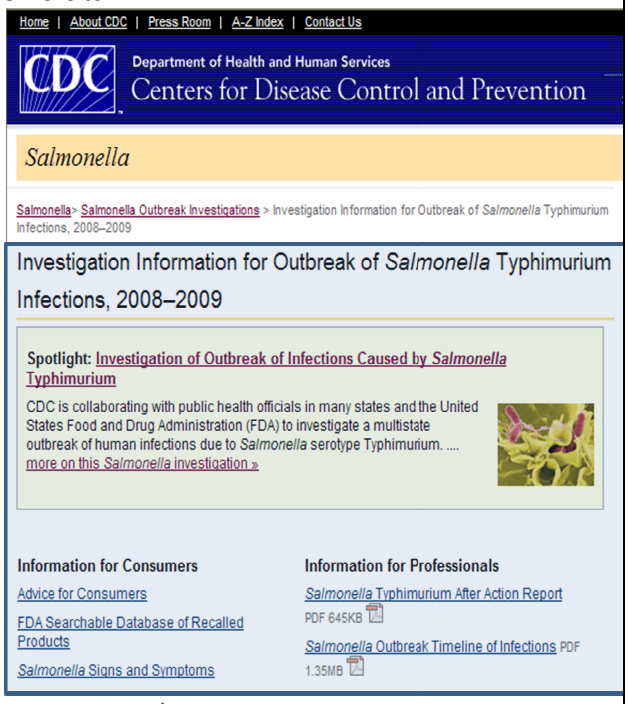
When was the last time your organization's website was updated (or reviewed)? When information or guidelines change, how long does it take to update your website content? Content syndication is a free service offered by CDC that can help manage content on your website.

Content syndication provides free CDC content (text and images) for partner websites. As information is updated on the CDC site, the syndicated content is automatically updated on the partner site.

Content syndication is currently being used by over 175 partners (both CDC and FDA). Syndicated topics include TB, tobacco, nutrition, and chronic disease information. Content syndication was used by the Ohio Department of Health for information on a recent *Salmonella*

outbreak. Below is a good example of how syndicated content looks first on the CDC site and then on a partner site.

CDC site:



The Ohio Department of Health site:

Content syndication enables CDC partners to load content directly on to their websites. Only content (including images) are transferred; the website template and navigation remain that of the partner organization.

DTBE is beginning to make content available for syndication. Currently, the General TB Information factsheets in English and in Spanish are available for syndication (English: http://www.cdc.gov/tb/publications/factsheets/general/tb.htm) Spanish: http://www.cdc.gov/tb/publications/factsheets/general/tb_es.htm). DTBE is working to make additional web content available for syndication.

Advantages:

- Allows TB partners to incorporate CDC content directly into their own website. This keeps Internet users on the partner page, instead of being led away to the CDC website.
- Content on the local website is automatically updated when the CDC content is updated.
- Spanish content would be available without the need to pay for translation services. (Three of the five most syndicated content sites from CDC are Spanish translations.)

General information about content syndication can be found on the CDC website at http://www.cdc.gov/SocialMedia/Tools/ContentSyndication.html. Frequently asked questions are posted at http://tools.cdc.gov/register/faqs.aspx. To review CDC pages available for syndication, or to register your organization for content syndication access, go to http://tools.cdc.gov/register/default.aspx. A list of TB syndicated content can be viewed at http://tools.cdc.gov/register/pages.aspx?topicId=147. Registering enables you to syndicate content from the CDC website. You'll be asked to provide your organization and contact information. Upon registering, CDC will provide a unique registration ID that you'll use to syndicate content. Your organization may already be syndicating content on other subject matters. If this is the case, your webmaster or public health

program counterparts may be able to provide you with additional information.

At the August Education and Training Focal Point meeting, questions were raised regarding software compatibility and security. There are some known issues with compatibility, with certain websites not permitting automatic updates to change content. This is a configuration issue that can be modified by webmasters if needed. CDC is not aware of any security or firewall issues. If your webmasters have questions regarding content syndication, they can contact the DTBE Web team (hsttbwebteam@cdc.gov.)

Additional TB web content will be made available for syndication in the coming months. If you have any questions or content requests, please contact the DTBE Web team at hsttbwebteam@cdc.gov.

—Reported by Molly Dowling, MPH, CHES
Div of TB Elimination

2010 Program Managers' Course

Overview of the TB Program Managers' Course

The overall purpose of the TB Program Managers' Course is to improve the planning and managerial capabilities of new TB program managers throughout the country. The course is designed for TB controllers, program managers,

public health advisors, and nurse consultants with programmatic responsibilities at the state, big city, territorial, or regional (within a state) level. Optimally, a course participant should have occupied a TB program management position for at least 6 months, but no more than 3 years. Participants are nominated by the DTBE Program Consultant for their area.

2010 TB Program Managers' Course

The 2010 course was held in Atlanta, Georgia, October 18–22, 2010. The DTBE Communications, Education, and Behavioral Studies Branch (CEBSB) would like to thank the faculty and participants of the October 2010 TB Program Managers' Course for making the course such a success. The hard work of the

faculty in preparing the materials for their sessions and the participants' hard work during the course are greatly appreciated.

This year's 5-day training was divided into 17 sessions. Each session stood alone as a block of instruction, but was sequenced to build logically on the sessions preceding it. The course concluded with a charge to the participants and an opportunity for each of them to share at least one planned improvement in TB program activities that will be made as a result of taking the course.

The course stressed practical application of planning, management, and evaluation concepts to the specific issues and concerns of TB programs. Skills essential to TB program management were presented, followed by exercises that encouraged participants to practice using the skills in the classroom setting. Some new additions to the course were the rollout of the Menu of Suggested Provisions for State Tuberculosis Prevention and Control Laws, and a Lunch-n-Learn session on Genotyping and TB GIMS. In addition, the continuity of instructional strategies for the contact investigation and TB outbreaks sessions continued to be a big hit with participants. These interactive sessions included a continuous case

study, various visual aids, and role playing. At the end of each session, participants were asked to address specific questions in a Planning Guide, which required them to synthesize concepts presented in the session and apply them to their own programs. The Planning Guide was a tangible product that participants took home from the course, to serve as a record of personal course discoveries and, more importantly, as a road map for improving the effectiveness of their TB prevention and control efforts.

For the participants, the course is not entirely over. They will be mailed a 6-month follow-up questionnaire in April 2011. Once this questionnaire is completed and returned, each participant will receive a certificate of completion for the course.

—Submitted by Regina Bess, BS, and Allison Maiuri, MPH
Div of TB Elimination

DATA MANAGEMENT AND STATISTICS BRANCH UPDATE

DMSB Observes the First World Statistics Day!

The date October 20, 2010, was chosen as World Statistics Day, since years ending in "0" have always been important in official statistics. DTBE's Data Management and Statistics Branch (DMSB) observed this first World Statistics Day by honoring the statisticians behind the statistics: Michael Chen, Andrew Hill, and Nong Shang.

"The notion of a global professional statistical family that transcends political, economic, and cultural differences among countries is perhaps the biggest achievement of all," said UN

Statistics Division Director Paul Cheung, in his message for World Statistics Day. "The celebration of World Statistics Day will acknowledge the service provided by the global statistical system at the national and international level, and we hope to help strengthen the awareness and trust of the public in official statistics. It serves as an advocacy tool to further support the work of statisticians across different settings, cultures, and domains," he said.

See Press Release

Ban Ki-Moon, Secretary-General of the United Nations, in his message on World Statistics Day, 20-10-2010, said, "On this first World Statistics Day I encourage the international community to work with the United Nations to enable all countries to meet their statistical needs."

—Submitted by Jose Becerra, MD
Div of TB Elimination

INTERNATIONAL RESEARCH AND PROGRAMS BRANCH UPDATE

The Global Health Delivery Project

Background and context

Through their work, Dr. Jim Yong Kim, Dr. Paul Farmer, and Professor Michael Porter of Harvard University saw a recurring and urgent need to understand and improve health care delivery systems, particularly in resource-limited settings. Stemming from their shared vision, the Global Health Delivery Project (GHD) was formed in 2006. The GHD is a partnership between leaders at Partners in Health, Harvard School of Public Health, Harvard Medical School, and the Brigham and Women's Hospital.

In addition to other innovations, GHD developed and maintains GHDonline.org, a platform of professional virtual communities. This site enables health implementers from around the world and across organizations to engage in problem-solving, connect with peers, and share information to improve the delivery of health care in resource-limited settings. Only 2 years after initial launch, more than 3,600 global health implementers representing over 1,200 organizations in more than 130 countries have joined one or several GHDonline communities. The professions of these health implementers range from students and advocates to clinicians and IT professionals.

These online communities are focused on specific delivery challenges and guided by 30 expert moderators. Each offers a dedicated *knowledge base* accessible via "moderators' topics" and an integrated search engine that combs through GHDonline content, as well as a database of hundreds of news feeds and authoritative websites selected and updated by the GHDonline team.

Global health implementers can join GHDonline.org for free. They can then easily participate via e-mail by subscribing to "Per Post" e-mail notifications from the communities, or by sending information such as links and tips using the communities' e-mail addresses.

How does one post or get involved?

Once they are members, health professionals can either sign in on GHDonline.org to visit a community and reply in discussions, add resources (links or files), or send an e-mail with their information, links, or advice to the communities—drtb@ghdonline.org for multidrug-resistant TB (MDR TB) and ic@ghdonline.org for TB infection control (IC)—thus sharing information instantly with fellow TB professionals and GHDonline members.

Members can also download and print or save very helpful peer-reviewed *Discussion Briefs* on various topics such as recommendations for

transporting suspected and confirmed MDR TB patients and how to properly use particulate respirators for TB infection control. These briefs recap the critical knowledge exchanged by members in the communities with key references (from guidelines to studies) and recommendations.

Members with a fluent knowledge of several languages are further invited to translate discussion replies, briefs, and posts in their native language, thus making critical information accessible to as many global health implementers as possible, or to provide expert review for briefs.

In June 2008, several infection control experts—Edward Nardell, MD, Harvard Medical School, Paul A. Jensen, PhD, PE, CIH, CDC, and Grigory Volchenkov, MD, Vladimir Oblast Tuberculosis Dispensary—joined as co-moderators of the first interactive, professional community on GHDonline.org focused on TB IC.

Complementing the MDR TB Treatment & Prevention community and four other communities focused on Adherence & Retention, Health IT, HIV prevention, Global Surgery and Global Nursing, as many as half of GHDonline members have now joined the TB communities to discuss practical challenges and exchange tips and information resources (from links to files).

Infection control consultants, national TB program (NTP) managers, laboratory professionals, and many others discuss a broad range of TB-related issues, such as how to do respirator fit testing, TB laboratory proficiency standards, nurse-patient ratio in the MDR TB hospital, or treatment of MDR and extensively drug-resistant (XDR) TB in countries where second-line drugs are not available.

What makes this resource unique or important?

GHDonline.org is particularly important in resource-limited settings where the vast majority of cases are found, and where health implementers

- often work in isolation,
- have limited opportunities to consult with peers, or
- can rarely exchange proven practices and access current information.

At its core, GHDonline.org is a collaborative effort and evidence-based platform. Members share advice on interventions, or knowledge that is applicable and important in the field, but perhaps not found in traditional publications. Partner organizations provide content, services, and tools to members to reduce duplication and build on existing knowledge and expertise.

One such partnership provides a 1-year complimentary subscription to UpToDate®, an electronic, peer-reviewed clinical information and decision-support resource, to qualifying members. This program was featured in the Globe in March: Second opinions, anywhere: Collaboration hopes to link doctors in developing countries to a digital network of support, expertise. GHDonline.org invites all organizations to join in this effort to build a global knowledge network for global health delivery.

Additionally, GHDonline.org is mostly text-based and built with a light user interface, thus allowing for access from unreliable Internet connections.

Applications for TB Professionals

Following are several examples of how members of the GHDonline TB community have collaborated to address specific TB challenges.

Infection control at home

Dr. Hind Satti is Director of Partners in Health in Lesotho, a nongovernmental organization (NGO) providing community-based directly observed treatment, short-course, for multidrug-resistant TB. She shared her team's practices and challenges for controlling the transmission of TB in single-room homes, and asked others to share their interventions. Dr. Satti received 18 replies in less than 72 hours; a total of 27 replies from 14 members were posted on this issue. Moderator Paul Jensen shared the image and specifications of a "whirly bird" ventilation device as a possible solution, and added that CDC is evaluating its use in the facilitation of natural air movement, which is critical to transmission control. Another member then identified a challenge to design a "whirly bird" that could ensure natural ventilation within the home but not let the heat out during winter months. With its contributors hailing from 10 countries and 12 organizations across three continents (Africa, Asia, and North America), this discussion demonstrates how a versatile website like GHDonline.org can contribute to the generation of practical "how to" guides, and at the same time bond and support global health professionals who often work in isolation.

Photo: Creating a whirly bird that retains indoor heat during winter months for use in single-room homes in resource-poor settings was one of the challenges identified and discussed in GHDonline

Assessing Lab Proficiency Standards

As stated by the WHO, "lack of diagnostic capacity is a crucial barrier preventing an effective response to the challenges of TB-HIV and drug-resistant TB, with less than 5% of the estimated burden of MDR TB patients currently being detected."[1] A member asked about the minimum volume of specimens for lab smear, culture, and drug-susceptibility testing needed in order to maintain lab proficiency. In less than a week, members from Belgium, Botswana, Brazil, the U.S., and Russia exchanged recommendations and key references. With 13 contributions in total, the practical recommendations and information resources shared in this discussion were then compiled in an easy-to-use peer-reviewed discussion brief on lab proficiency standards and quality assessment. The brief also represents an interactive how-to guide that will be updated on a regular basis to reflect the addition of information by members joining the exchange in the future.

Stemming from one question from a member in the U.S., the discussion Assessing Lab Proficiency Standards generated a back-and-forth from GHDonline members on four continents and led to a second question by a different member in the U.S., which was also answered.

Using N 95 respirators/masks

On June 5, 2009, Dr. Rajbir Singh, the Regional Medical Coordinator for North India with the German Leprosy & TB Relief Association, asked how many days N95 masks could be used indoors. In the exchange that followed, a CDC engineer (Paul Jensen), a TB adviser in Azerbaijan, and the head doctor of a TB dispensary in Russia shared their knowledge and exemplified international, interdisciplinary collaboration through their participation. In a 3-day span, Singh was not only given clear directions on how long his team could use N95 masks indoors, but also received and shared manufacturers' prices and recommendations for various models. Members shared their own practice: "I personally use two N95 or FFP2 respirators, with exhaust valves, per week" or "In my TB hospital in Vladimir, Russia, nurses need one respirator for one to two shifts, and doctors use 4 to 6 per month, depending on workload and time spent in high-risk zones." This discussion is now archived and searchable by all, and because it is a web resource, GHDonline members can update prices and add recommendations as needed.

Outdoor sputum induction in South Africa

On December 15, 2008, a TB IC member asked fellow members if they knew of a protocol for sputum induction (SI) in outdoor settings that addresses environmental considerations, time needed between inductions, and precautions for health workers. Smear microscopy of sputum, often obtained by inducing sputum, is a key tool in TB diagnosis in resource-limited settings as it is low cost and more feasible than other less accessible procedures [2]. But the risk of infection is extremely high, especially indoors in congregate and resource-constrained settings.

Faced with similar challenges, 15 members representing 17 organizations and various professions located in the United States, the United Kingdom, the Netherlands, the Philippines, South Africa, Ghana, and Nigeria replied to the member's question—13 responses being posted within 72 hours, 20 in total. Participants shared their organizations' protocols and, more importantly, the lessons they learned in the field from first-hand practical knowledge. They insisted on the importance of wind conditions and climate, on understanding the community environment and the potential need for booths, and on providing and properly using N95 masks.

Current challenges discussed in the TB communities range from the viability of TB organisms in air to a member in Azerbaijan asking about the recommended duration of TB regimen in case of extensive cavitation.

If you work in a health-care field such as TB or infection control or are otherwise involved in global health, perhaps as a student or volunteer, and wish to make a difference in the delivery of services to patients in resource-limited settings, join GHDonline and start contributing today!

—By Sophie Beauvais
Global Health Delivery Project at Harvard

References

1. World Health Organization. Global Laboratory Initiative (GLI) Web page http://www.who.int/tb/dots/laboratory/gli/en/index.html. Accessed August 10, 2010.

2. Menzies D. Sputum induction: simpler, cheaper and safer - but is it better? *American Journal of Respiratory and Critical Care Medicine* 2003;167:676.

LABORATORY BRANCH UPDATE

LB Hosts Advanced Diagnostic Mycobacteriology Course

Sixteen participants attended a 4-day Advanced Mycobacteriology Laboratory Course at CDC's Roybal Campus in August 2010. Attendees included medical technologists and other laboratorians from public health and clinical mycobacteriology laboratories. Topics covered included molecular testing, resolving drug susceptibility testing issues, validation of new tests, quality assurance, safety, and identification of nontuberculous mycobacteria. In addition to hands-on time in the training laboratory and didactic presentations, the students had the valuable opportunity to share information with their peers about issues common to TB testing such as testing algorithms, problems, and solutions with their peers. Case studies from both CDC presenters and the audience highlighted the many complications and intricacies of TB diagnostics experienced by laboratorians, and provided useful resolutions to the issues discussed.

The course was produced by the Laboratory Branch (LB), DTBE, and sponsored by the Association of Public Health Laboratories (APHL) and the National Laboratory Training Network (NLTN). Dr. Beverly Metchock, Leader, Reference Laboratory Team (RLT), LB, served as chief presenter. Joining Dr. Metchock was Dr. Ken Castro, Director, DTBE, and Dr. Brandi Limbago from the Clinical and Environmental Microbiology Branch (CEMB), Division of Healthcare Quality Promotion (DHQP), as well as several staff members from RLT.

Class participants represented state public health mycobacteriology laboratories in Connecticut, Alabama, Kansas, Alaska, Pennsylvania, Idaho, Arizona, Wyoming, Mississippi, Nebraska, Indiana, and New Mexico. Also represented were a clinical lab from South Dakota and a county public health lab located in Arizona. At the conclusion of the course, attendees were asked to convey one change they planned to make in their laboratory following the workshop. All attendees submitted at least one idea to take back and implement; these changes included reviewing testing algorithms, changing the way drug susceptibilities are set up, and overhauling quality assurance protocols.

Feedback solicited by NLTN course facilitators and comments sent to MLB following the course will help inform the development of future workshops, and will assist NLTN in formulating impact measures in the months following the course. The LB, in conjunction with APHL and NLTN, plans to provide this valuable training course in the future to TB laboratorians and scientists.

—Submitted by Frances Tyrrell, MPH, MT (ASCP)
Div of TB Elimination

NEW CDC PUBLICATIONS

Aburto NJ, Pevzner E, Lopez-Ridaura R, Rojas R, Lopez-Gatell H, Lazcano E, Hernandez-Avila M, Harrington TA. Knowledge and adoption of community mitigation efforts in Mexico during the 2009 H1N1 pandemic. *Am J Prev Med* 2010 Nov;39(5):395-402.

Anekvorapong R, Sinthuwattanawibool C, Podewils L, McCarthy K, Ngamlert K, Promsarin B, Varma JK. Validation of the GenoType MTBDRplus assay for detection of MDR-TB in a public health laboratory in Thailand. *BMC Infectious Diseases* 2010:123.

Courter JD, Girotto JE, Lobato MN, Orcutt D, Burke M, Feder HM, Jr., Krause PJ, Cohen-Abbo A, Salazar JC. Intravenous streptomycin for treatment of *Mycobacterium tuberculosis* meningitis in an infant. *Pharmacotherapy* 2010;30(11):481e–484e.

De Kantor IN, LoBue PA, Thoen CO. Human tuberculosis caused by *Mycobacterium bovis* in the United States, Latin America, and the Caribbean. *Int J Tuberc Lung Dis* 2010

Horsburgh CR, Goldberg S, Bethel J, Chen S, Colson PW, Hirsch-Moverman Y, Hughes S, Shrestha-Kuwahara R, Sterling TR, Wall K, Weinfurter P, and the Tuberculosis Epidemiologic Studies Consortium. Latent tuberculosis infection treatment acceptance and completion in the United States and Canada. *Chest* 2010 Feb; 137(2): 401-9.

King L, Munsiff SS, Ahuja SD. Achieving international targets for tuberculosis treatment success among HIV-positive patients in New York City. *Int J Tuberc Lung Dis* 2010 Dec; 14(12): 1613-1620.

Lazar CM, Sosa L, Lobato MN. Practices and policies of providers testing school-aged children for tuberculosis, Connecticut, 2008. *J Community Health* 2010; 35:495–499.

Miramontes R, Lambert L, Haddad MB, Boaz V, Hawkins S, Zylstra M, Allen R, Rivers S, Ali B, Chewning SS, Holt E, Warkentin J. Public health response to a multidrug-resistant tuberculosis outbreak among Guatemalans in Tennessee, 2007. *South Med J* 2010 Sep;103(9):882-6.

Moonan PK, Quitugua TN, Pogoda JM, Woo G, Drewyer G, Sahbazian B, Dunbar D, Jost KC, Wallace C, Weis SE. Does directly observed therapy (DOT) reduce drug- resistant tuberculosis? *BMC Public Health* 2010 Dec 15; 10:756.

Parvez F, Lobato MN, Greifinger R. TB control: a prevention model for outbreak preparedness in correctional facilities. [Commentary.] *J Correct Health Care* 2010; 16:239-242.

Pevzner ES, Robison S, Donovan J, Allis D, Spitters C, Friedman R, Ijaz K, Oeltmann JE. Tuberculosis transmission and use of methamphetamines in Snohomish County, WA, 1991-2006. *Am J Public Health* 2010 Dec;100(12):2481-6. Epub 2010 Feb 18.

Podewils LJ, Holtz T, Riekstina V, Skripconoka V, Zarovska E, Kirvelaite G, Kreigere E, Leimane V. Impact of malnutrition on clinical presentation, clinical course, and mortality in MDR-TB patients. *Epidemiol Infect* 2010 Apr 30:1-8.

Sculier D, Vannarith C, Reaksmey P, Thai S, Kanara N, Borann S, Cain KP, Lynen L, Varma JK. Performance of abdominal ultrasound for diagnosis of tuberculosis in HIV-infected persons living in Cambodia. *J Acquir Immune Defic Syndr*. 2010;55:500-2.

Thomas JA, Laraque F, Munsiff S, Piatek A, Harris TG. Hospitalizations for tuberculosis in New York City: how many could be avoided? *Int J Tuberc Lung Dis* 2010 Dec; 14(12): 1603–12.

Varma JK, McCarthy KD, Tasaneeyapan T, Monkongdee P, Kimerling M, Buntheon E, Sculier D, Keo C, Phanuphak P, Teeratakulpisarn N, Udomsantisuk N, Dung NH, Lan NTN, Yen NTB, Cain KP. Bloodstream infections among HIV-infected outpatients, Southeast Asia. *Emerg Infect Dis* 2010;16:1569-1575.

Weiner M, Prihoda TJ, Burman W, Johnson JL, Goldberg S, Padayatchi N, Duran P, Engle M, Muzanye G, Mugerwa RD, Sturm AW. Evaluation of time to detection in broth culture as an endpoint for tuberculosis trials. *J Clin Microbiol* 2010 Oct 6. [Epub ahead of print].

Winters A, Agerton TB, Driver CR, Trieu L, O'Flaherty T, Munsiff SS. Congenital tuberculosis and management of exposure in three neonatal intensive care units. [Case study.] *Int J Tuberc Lung Dis* 2010 Dec; 14 (12): 1641-1643.

PERSONNEL NOTES

Garry L. Blackwelder joined DTBE's International Research and Programs Branch (IRPB) as an Engineer/Architect with the Infection Control Team on Nov. 22. A native of Savannah, Georgia, Garry received his undergraduate degree in Architecture from Georgia Tech. After a number of years in private practice, he began a career with CDC in the Engineering Services Office. After 2 years, Garry received a Commission in the Public Health Service and a consulting position in the Center for Infectious Diseases (CID). He also did some graduate work at Emory University's Rollins School of Public Health while doing international laboratory design consulting for the Management, Development, and Consultation Branch of CID.

During his tenure at CDC, Garry was responsible for the 20-year Master Plan for Facilities. His career at CDC included a number of accomplishments as a project architect for several new buildings, as well as authoring a number of innovative CDC facilities programs, including the open space planning program, a lease/build construction methodology, and a blanket contract for renovations. Garry was also instrumental in the design and building of smallpox laboratories at CDC and in Russia, in addition to laboratory designs in Jordan and Malawi. After a re-organization at CDC, Garry left to pursue consulting interests in the private sector. After starting and managing three successful private business ventures, he is returning to CDC. Overall, he has been involved in the design/build industry for 35 years.

Patricia (Patty) Blackwelder has joined the Communications, Education, and Behavioral Studies Branch for a few months. She is filling in for Sharon McAleer while Sharon is out on maternity leave, and will likely be here in DTBE until the end of February (or whenever Sharon returns). Patty is a webmaster with Northrop Grumman, and has many years of web experience.

Patty started her career in 2000 as a Junior Programmer, but moved into graphic art and design when she took a position as a production artist at Coca-Cola with the McDonald's group. Following her position at Coca-Cola, she spent 4 years as the print production and layout artist for InterContinental Hotel Group's printed hotel directory, where she managed the graphics, layout, data gathering, and compilation for information on 3,700 hotels into the 600+ page publication.

In 2007, Patty began work as a front-end developer, or webmaster, for Moxie Interactive. A year later she accepted a designer/developer position with EZPrints, a customized gift printing company, where she worked to automate their graphics processes and improve the usability of their websites. Later in 2009, she accepted a position with Northrop Grumman supporting the Applications Development Group.

Working with CDC and Northrop Grumman, Patty has had the pleasure of working with various teams and some wonderful people throughout CDC/OID on a variety of projects, from graphics to web administration to usability to SharePoint.

Heather Duncan, MPH, has accepted the position of Deputy Chief of Staff, CDC. She has been on detail to the CDC Office of the Chief of Staff as acting Deputy Chief of Staff since September 12, 2010. Heather helps manage the day-to-day operations of the Director's office, which includes the Executive Secretariat, Issues Management, Meeting and Advance Planning, and Operations teams.

Heather joined CDC in 1991 as a Public Health Associate I and was assigned to Long Beach, California, where she worked in STD control. In this assignment, she learned many of the core activities of public health: outreach, field

investigation, epidemiology, surveillance, and patient and community education.

In 1993, she transferred to New York City where, as a Public Health Associate II, she carried out contact investigations, patient interviews, and active surveillance during the height of the TB resurgence. Through a number of assignments within the New York City Bureau of TB Control, she gained front-line management and supervisory experience.

For 5 years, she served as the senior public health advisor for the Bureau of TB and Refugee Health in Tallahassee, Florida, before relocating to Atlanta in 2005 as a program consultant with DTBE. Most recently, she served as the Associate Director for Management and Operations for DTBE.

Heather has a Bachelor of Science degree in biology from Furman University and an MPH degree from Tulane University.

Vincent Fears and Scott Jones of FSEB won the NCHHSTP Director's Recognition Award for October. Scott and Vincent were detailed to the Federal Bureau of Prisons (FBOP) to assist with containing an outbreak of TB that started in one of its facilities in West Virginia.

Scott, senior public health advisor assigned to the State of Alabama Department of Public Health, TB Control Division, was detailed to FBOP in Washington, DC, to assist with containing an outbreak of TB that started in an FBOP facility in West Virginia. He worked collaboratively with this key CDC partner to prioritize efforts that would have an impact on containing this outbreak without the allocation of additional resources, thus preventing the further spread of TB disease in a high-risk setting.

Vincent transitioned into the second half of the assignment and distinguished himself as an outstanding PHA in the performance of his duties. Vincent's follow-up work included a complete review of 2008 - 2009 TB suspects and cases. He assisted with the identification of a possible upward trend in TB cases within the federal correctional system with an annual case rate approximately four times the national case rate (16.3 per 100,000 for 2009). His work highlighted that most of the cases were in foreign-born persons, predominantly from Mexico. A significant proportion of these cases were also sputum smear positive. These data, combined and singularly, indicated significant evidence of continuing transmission with a concomitant need for aggressive continued screening of the inmate population. The data enabled FBOP to target areas for enhanced resource allocation to address the continuing problem.

The results of this work enabled the FBOP to grasp the baseline information required for maintaining an effective TB prevention and control program, and identified key areas of TB program management where methods were recommended for continued program improvement. Jimmy and Vincent's efforts have influenced the practice of a federal agency outside the Department of Health and Human Services.

For their exceptional work containing a TB outbreak, Scott Jones and Vincent Fears were awarded the October NCHHSTP Director's Recognition Award.

Chad Heilig and Kimberly McCarthy were the recipients of the DTBE Director’s Recognition Award for the 4th quarter of 2010. Chad and Kim were selected to receive this honor because of their contributions to changing global policy for TB screening and diagnosis in people with HIV. During 2006-2010, a study entitled “Improving the Diagnosis of Tuberculosis in HIV-infected Persons” (ID-TB/HIV study) was implemented in Cambodia, Thailand, and Vietnam. This study would not have been possible without Chad’s participation as the co-investigator for

methodological and analytic issues and Kim's participation as the co-investigator from CDC for laboratory issues. Kim's work alongside local laboratorians in Southeast Asia resulted in the implementation and standardization of high quality procedures across three countries. Her combination of strong technical skills with warmth and humility made it possible for even very challenging recommendations to be implemented by the staff, who greatly appreciated her assistance. Chad's substantial analytic expertise as a collaborator, consideration of multiple methodologic approaches, and extensive communication with all collaborators ensured that the methods used were appropriate and well understood by all the investigators. The outcome was an outstanding analysis that resulted in acceptance of the work to the New England Journal of Medicine. Chad's subsequent collaboration on a meta-analysis of this and other TB screening studies resulted in changed global policy regarding the TB screening of people with HIV.

This award recognizes Chad and Kim's commitment to excellence, accomplishment, and ability to work extremely well across branches and across countries. This type of collaborative interdisciplinary work within the Division is essential for accomplishing complex projects while ensuring high quality.

Angel Roca is the new DTBE Senior Public Health Advisor for New York City and Deputy Director of the New York City Health Department Bureau of Tuberculosis Control. He reports to his new assignment on October 12.

Angel started his career in public health in 1980 as a Public Health Advisor STD investigator, first with the Onondaga County Health Department in Syracuse, New York, and a year later with the New York State Department of Health. In his role, Angel was responsible for assisting local health officials establish disease prevention and control programs. He also interviewed and counseled affected populations, and collected surveillance data. In 1985 he worked with the New York State AIDS Institute as a Public Health Representative III, Senior HIV Counselor, where he established the state's first HIV (HTLV-III) anonymous testing program in Nassau County.

Angel joined CDC and the National Center for Chronic Disease Prevention and Health Promotion as a project officer for the Division of Adolescent and School Health in 1992, and a year later moved to the Center's OD as the HIV liaison under the matrix management of HIV activities at CDC. In 1996 he was promoted to Deputy Director for Planning, Evaluation and Legislation. In 2001 he was transferred to NCCDPHP's Global Health Promotion where he served as Deputy Associate Director, working with Ministries of Health to promote non-communicable disease prevention and control, and health promotion activities. Later in 2007, he was assigned to the CDC Regional Office for Central America and Panama in Guatemala City, Guatemala, where he served as Deputy Director/ Overseas Business Manager. In 2009 Angel returned stateside as Team Lead for the Training and Staff Development Team, Workforce Management Office, Center for Global Health. Angel has a BA in Public Justice from the State University College at Oswego, Oswego, New York, and is working on his MPH degree at the Emory School of Public Health.

In Memoriam

Susan Bacheller, a friend and colleague of many in global health and at CDC, died in October. The U.S. Agency for International Development (USAID), where Susan worked, posted an eloquent memorial notice about Susan. We include it here.

> Our dear colleague and friend, Susan Bacheller, who gave more than 15 years of dedicated service to USAID and global public health, passed away last week. We admired and appreciated her dedication to development, global health, and especially

the fight against tuberculosis. A faithful friend, she showed grace and good humor toward everyone.

Susan's technical leadership, intellect, and spirit inspired those she met and served. She was a driving force in the global effort to improve the health of millions of men, women and children around the world – reflecting the best of USAID's core values. Hers was a life spent in service to others.

Susan grew up in Grand Rapids, Michigan, and was a registered nurse, later earning a Bachelor of Arts in Political Science and a Master of Arts degree in International Development. Following service as a Peace Corps volunteer in Yemen and Honduras, she joined USAID, working in the Bureau for Global Health, as well as the Bureau for Latin America and the Caribbean.

As TB Team Leader, she was instrumental in building up USAID's tuberculosis portfolio and established a network of colleagues worldwide, who admired and respected her work and dedication. Susan developed the U.S. Government's Global Tuberculosis Strategy, provided expert support to USAID missions, and was a determined and compassionate ambassador and advocate for global tuberculosis control.

Susan transformed the lives of many more across the globe. Her passion for those who lived on the margins and for fairness was evident to all.

Our hearts go out to her family and friends in this time of great loss. A true public health advocate and professional, Susan will be sorely missed. I hope that you will join me in reflecting on the legacy of our great colleague and friend. She, for her technical leadership, compassion and humor, will be forever remembered.

CALENDAR OF EVENTS

January 15–20, 2011
Tuberculosis: Immunology, Cell Biology and Novel Vaccination Strategies
Vancouver, British Columbia, Canada
Keystone Symposia

January 19–20, 2011
TBESC 18th Semiannual Meeting
Atlanta, Georgia
DTBE/CDC

February 14–26, 2011
Management, Finance, and Logistics
Bangkok, Thailand
IUATLD
E-mail: imdp@theunion.org
www.union-imdp.org

February 16–19, 2011
ACPM Meeting
San Antonio, Texas
American College of Preventive Medicine

February 24–26, 2011
15th UNION North American Region Conference
Vancouver, British Columbia, Canada
IUATLD

March 21–25, 2011

Mass Media and Communications
Singapore
IUATLD
E-mail: imdp@theunion.org
www.union-imdp.org

April 13–16, 2011
The Denver TB Course
Denver, CO
National Jewish Health

April 25–30, 2011
Influencing, Networking, and Collaboration
Singapore
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E-mail: imdp@theunion.org
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